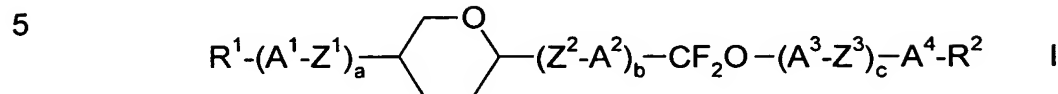


Patent Claims

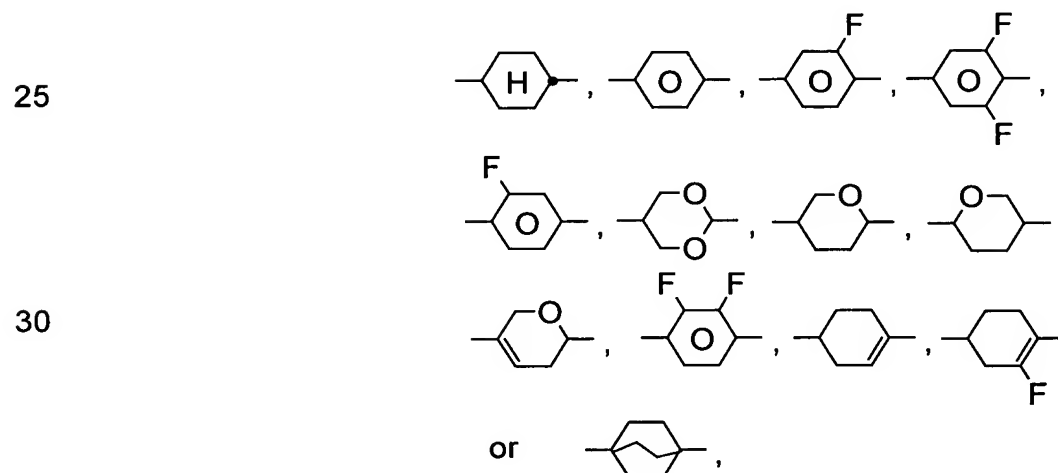
1. Liquid-crystalline compounds of the formula I



in which

10 R^1 and R^2 each, independently of one another, denote H, halogen, a halogenated or unsubstituted alkyl or alkoxy radical having 1 to 15 C atoms, where, in addition, one or more CH_2 groups in these radicals may each, independently of one another, be replaced by $-\text{C}\equiv\text{C}-$, $-\text{CH}=\text{CH}-$, $-\text{O}-$, $-\text{CO}-\text{O}-$ or $-\text{O}-\text{CO}-$ in such a way that O atoms are not linked directly to one another, where one of the radicals R^1 and R^2 may alternatively denote CN, OCN, SCN, NCS or SF_5 ,

20 A^1, A^2, A^3 and A^4 each, independently of one another, denote

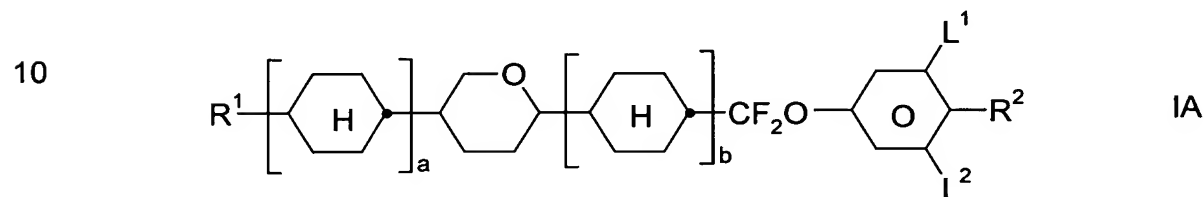


35 Z^1, Z^2 and Z^3 each, independently of one another, denote $-\text{CO}-\text{O}-$, $-\text{O}-\text{CO}-$, $-\text{CF}_2\text{O}-$, $-\text{OCF}_2-$, $-\text{CH}_2\text{O}-$, $-\text{OCH}_2-$, $-\text{CH}_2\text{CH}_2-$,

-(CH₂)₄-, -C₂F₄-, -CH₂CF₂-, -CF₂CH₂-, -CF=CF-,
-CH=CH-, -C≡C- or a single bond, and

5 a, b and c each, independently of one another, denote 0, 1, 2 or 3, where $a + b + c \leq 3$.

2. Liquid-crystalline compounds of the formula IA



in which

15 R¹, R², a, b, c and have the meanings indicated in Claim 1, where $a + b = 1$ or 2, and

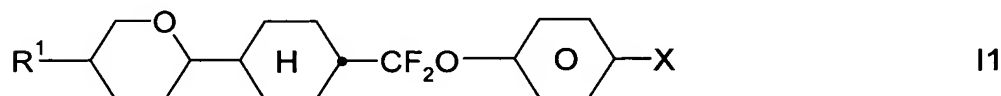
L¹ and L² each, independently of one another, denote H or F.

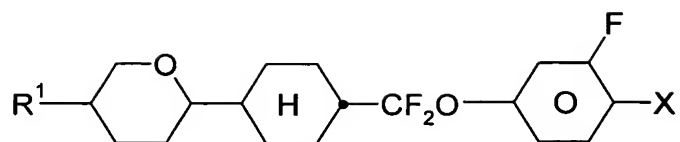
20 3. Liquid-crystalline compounds according to Claim 1 or 2, characterised in that $a = 1$ and $b = 0$ or $a = 0$ and $b = 1$.

25 4. Liquid-crystalline compounds according to Claim 2, characterised in that L¹ denotes fluorine and L² denotes fluorine or hydrogen.

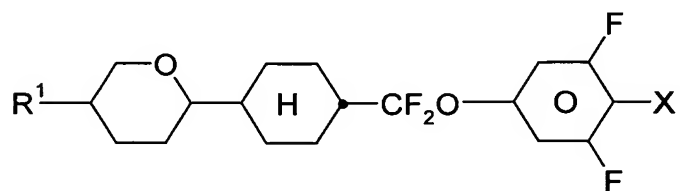
5. Liquid-crystalline compounds according to Claim 2, characterised in that L¹ and L² denote fluorine.

30 6. Liquid-crystalline compounds of the formulae I1 to I31

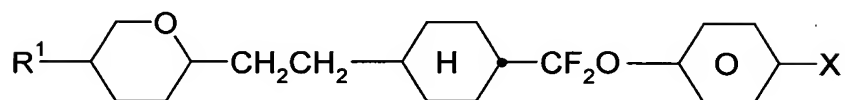




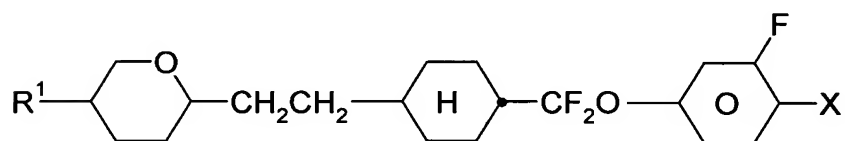
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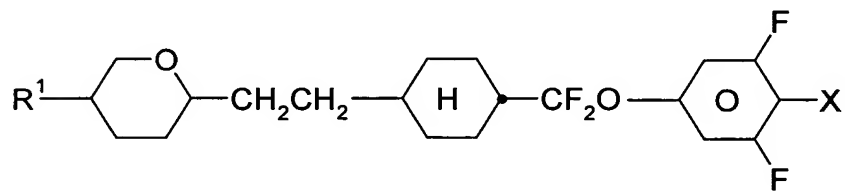
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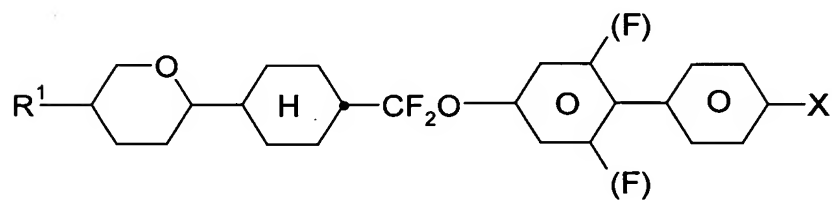
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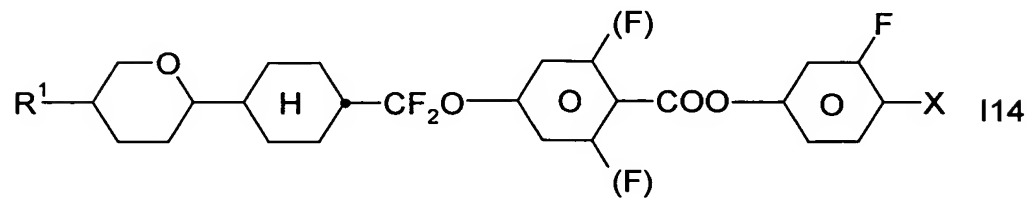
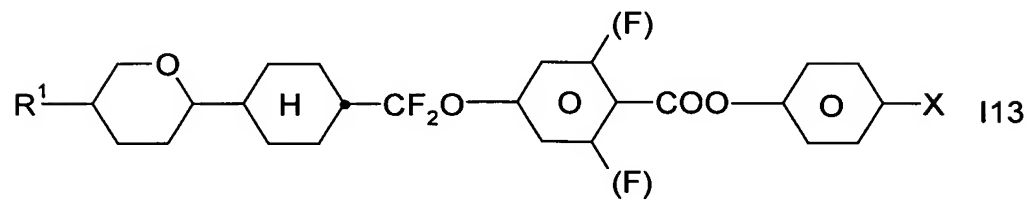
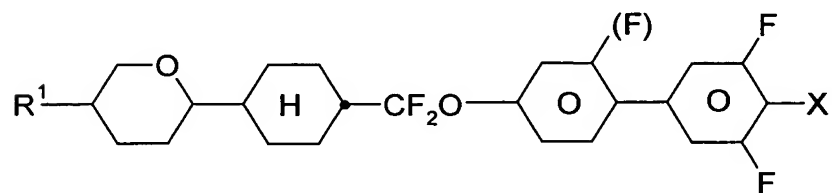
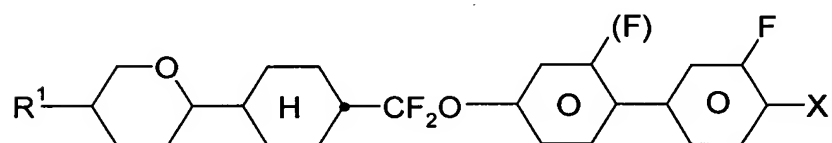
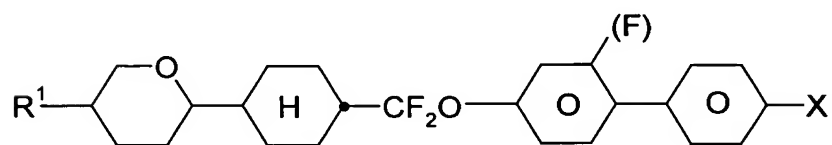
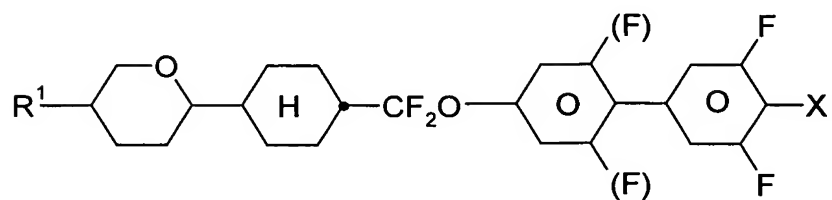
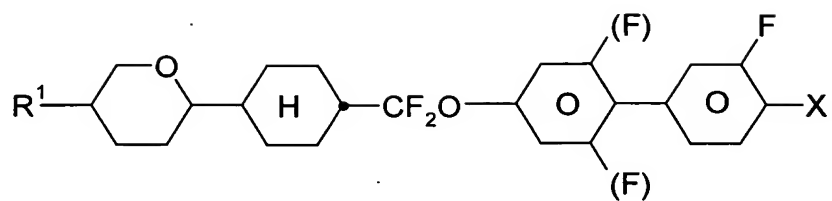
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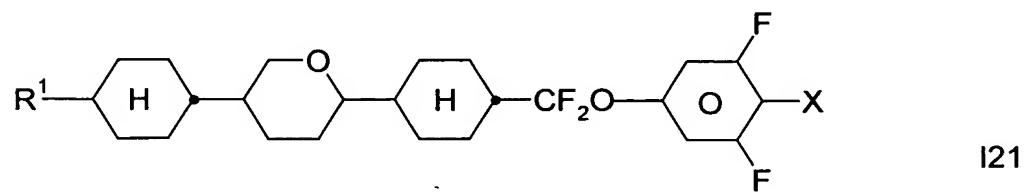
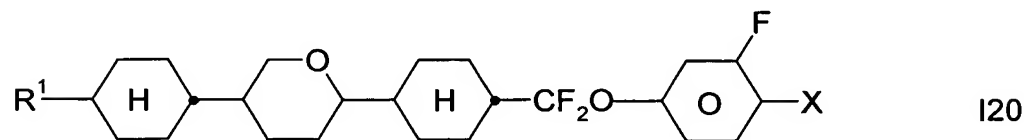
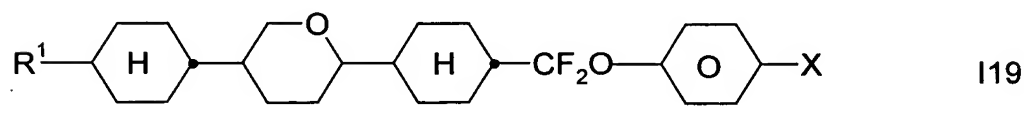
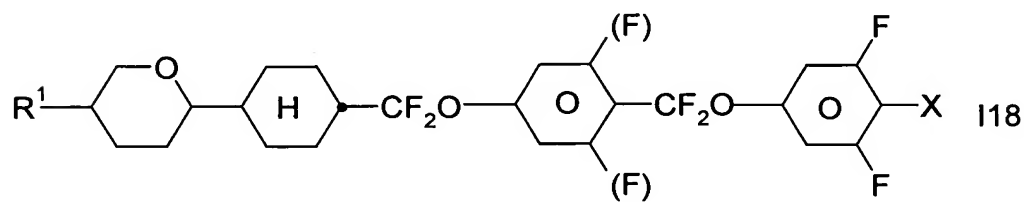
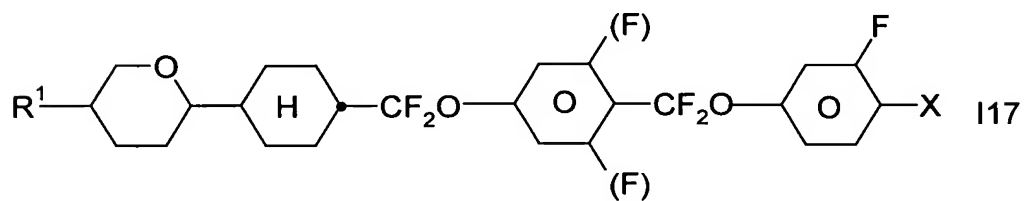
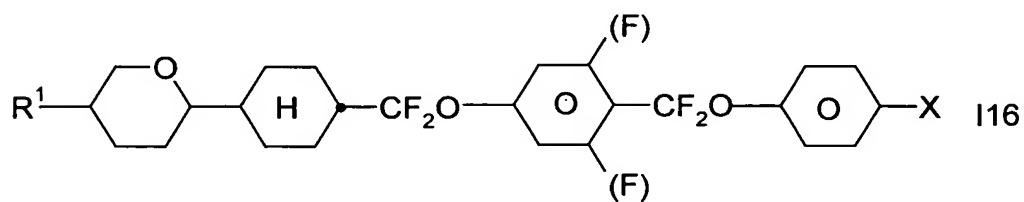
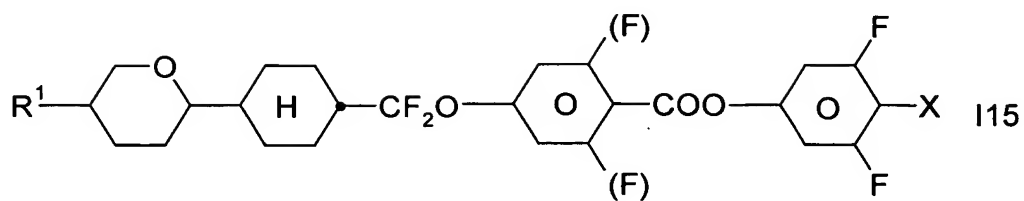


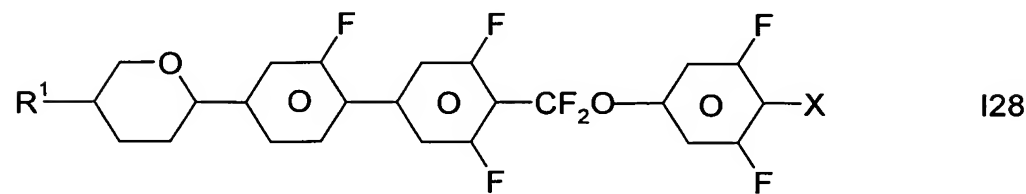
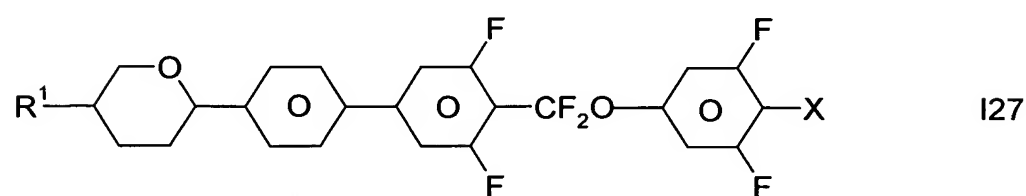
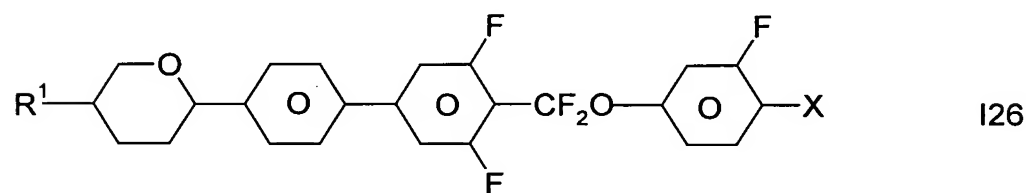
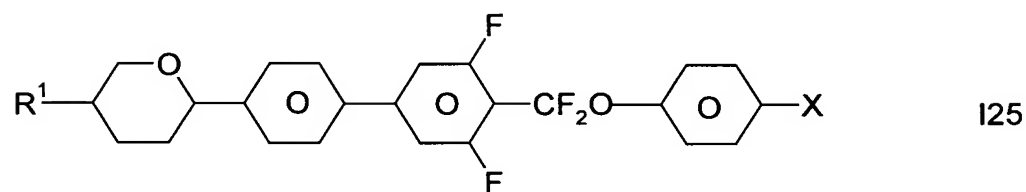
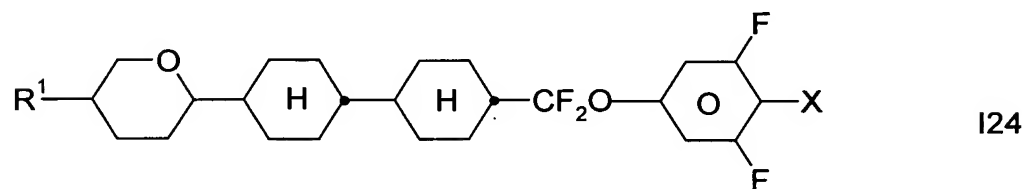
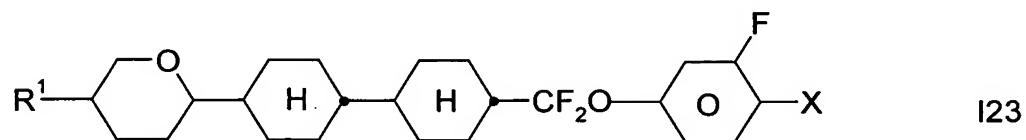
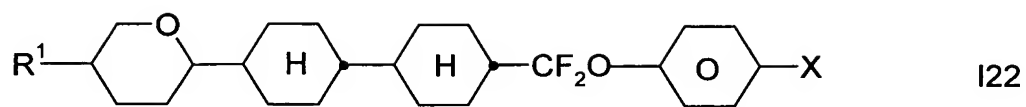
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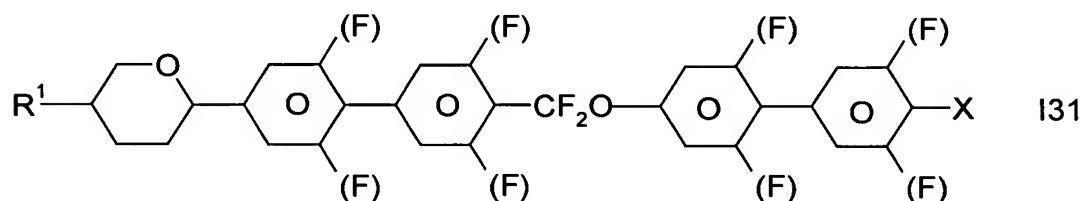
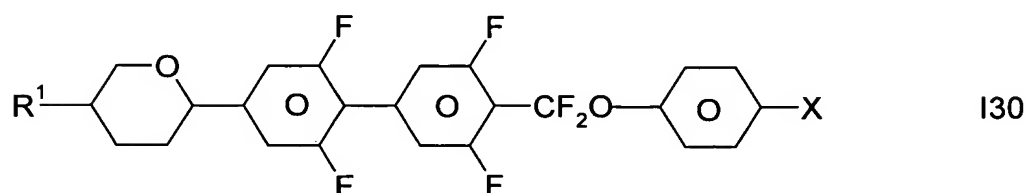
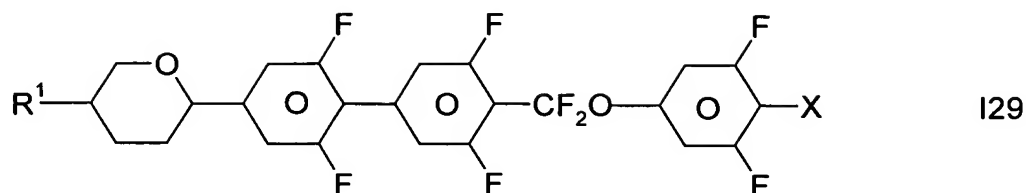


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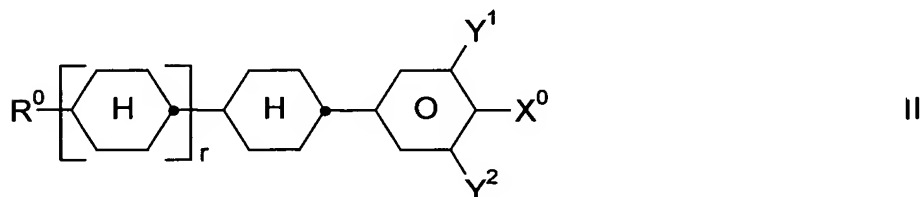


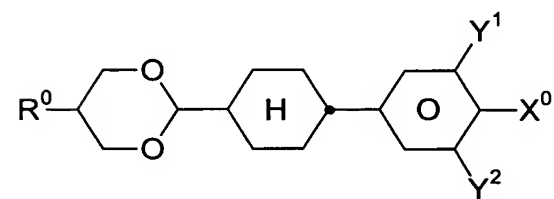
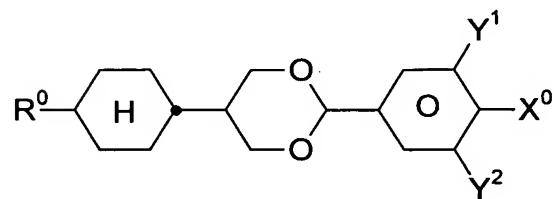
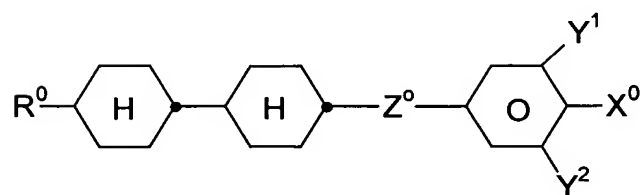
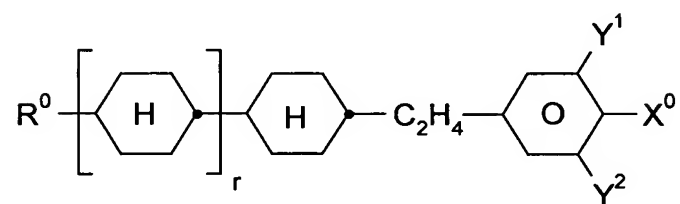
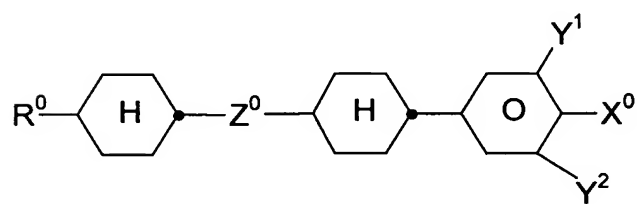
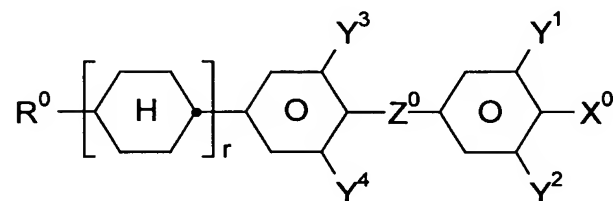
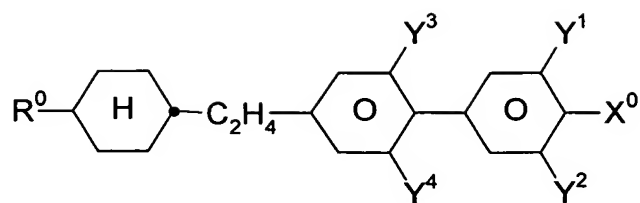




in which R¹ has the meaning indicated in Claim 1 and X has the meaning of R².

- 20
7. Liquid-crystalline medium comprising at least two mesogenic compounds, characterised in that it comprises at least one compound of the formula I according to Claim 1.
- 25
8. Liquid-crystalline medium according to Claim 7, characterised in that it comprises one or more compounds selected from the group consisting of the general formulae II to IX





in which

- 5 R^0 denotes n-alkyl, oxaalkyl, fluoroalkyl, alkenyloxy or alkenyl, each having up to 9 C atoms,
- X^0 denotes F, Cl, halogenated alkyl, halogenated alkenyl, halogenated alkenyloxy or halogenated alkoxy having up to 7 C atoms,
- 10 Z^0 denotes $-\text{CH}=\text{CH}-$, $-\text{C}_2\text{H}_4-$, $-(\text{CH}_2)_4-$, $-\text{C}_2\text{F}_4-$, $-\text{CH}_2\text{O}-$, $-\text{OCH}_2-$, $-\text{CF}=\text{CF}-$, $-\text{CF}_2\text{O}-$, $-\text{OCF}_2-$ or $-\text{COO}-$,
- $Y^1, Y^2,$
 Y^3 and Y^4 each, independently of one another, denote H or F, and
15 r is 0 or 1.
9. Use of the liquid-crystalline medium according to Claim 7 or 8 for electro-optical purposes.
- 20 10. Electro-optical liquid-crystal display containing a liquid-crystalline medium according to Claim 7 or 8.

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